# WEST

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**Search Results -**

| Terms | Documents |
|---|---|
| 6217847.pn. | 1 |

**Database:** US Patents Full-Text Database
US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

**Search:** L7

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## Search History

**DATE: Sunday, June 02, 2002** Printable Copy Create Case

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| *DB=USPT; PLUR=YES; OP=ADJ* | | | |
| L7 | 6217847.pn. | 1 | L7 |
| L6 | 6020121.pn. | 1 | L6 |
| L5 | 5650135.pn. | 1 | L5 |
| L4 | 5900362.pn. | 1 | L4 |
| L3 | l1 and luc | 1 | L3 |
| L2 | l1 near10 luc | 0 | L2 |
| L1 | lux near5 positive | 34 | L1 |

END OF SEARCH HISTORY

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

| | | |
|---|---|---|
| NEWS 1 | | Web Page URLs for STN Seminar Schedule - N. America |
| NEWS 2 | Jan 25 | BLAST(R) searching in REGISTRY available in STN on the Web |
| NEWS 3 | Jan 29 | FSTA has been reloaded and moves to weekly updates |
| NEWS 4 | Feb 01 | DKILIT now produced by FIZ Karlsruhe and has a new update frequency |
| NEWS 5 | Feb 19 | Access via Tymnet and SprintNet Eliminated Effective 3/31/02 |
| NEWS 6 | Mar 08 | Gene Names now available in BIOSIS |
| NEWS 7 | Mar 22 | TOXLIT no longer available |
| NEWS 8 | Mar 22 | TRCTHERMO no longer available |
| NEWS 9 | Mar 28 | US Provisional Priorities searched with P in CA/CAplus and USPATFULL |
| NEWS 10 | Mar 28 | LIPINSKI/CALC added for property searching in REGISTRY |
| NEWS 11 | Apr 02 | PAPERCHEM no longer available on STN. Use PAPERCHEM2 instead. |
| NEWS 12 | Apr 08 | "Ask CAS" for self-help around the clock |
| NEWS 13 | Apr 09 | BEILSTEIN: Reload and Implementation of a New Subject Area |
| NEWS 14 | Apr 09 | ZDB will be removed from STN |
| NEWS 15 | Apr 19 | US Patent Applications available in IFICDB, IFIPAT, and IFIUDB |
| NEWS 16 | Apr 22 | Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS |
| NEWS 17 | Apr 22 | BIOSIS Gene Names now available in TOXCENTER |
| NEWS 18 | Apr 22 | Federal Research in Progress (FEDRIP) now available |
| NEWS 19 | May 31 | PCTFULL to be reloaded. File temporarily unavailable. |

| | |
|---|---|
| NEWS EXPRESS | February 1 CURRENT WINDOWS VERSION IS V6.0d, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002 |
| NEWS HOURS | STN Operating Hours Plus Help Desk Availability |
| NEWS INTER | General Internet Information |
| NEWS LOGIN | Welcome Banner and News Items |
| NEWS PHONE | Direct Dial and Telecommunication Network Access to STN |
| NEWS WWW | CAS World Wide Web Site (general information) |

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FILE 'HOME' ENTERED AT 16:36:44 ON 02 JUN 2002

=> **LUX (5A) POSITIVE**
LUX IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> **FILE .ELIZ**

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.42 | 0.42 |

FILE 'MEDLINE' ENTERED AT 16:38:03 ON 02 JUN 2002

FILE 'SCISEARCH' ENTERED AT 16:38:03 ON 02 JUN 2002

FILE 'LIFESCI' ENTERED AT 16:38:03 ON 02 JUN 2002
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FILE 'BIOTECHDS' ENTERED AT 16:38:03 ON 02 JUN 2002
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FILE 'HCAPLUS' ENTERED AT 16:38:03 ON 02 JUN 2002
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FILE 'NTIS' ENTERED AT 16:38:03 ON 02 JUN 2002
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FILE 'ESBIOBASE' ENTERED AT 16:38:03 ON 02 JUN 2002
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FILE 'BIOTECHNO' ENTERED AT 16:38:03 ON 02 JUN 2002
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FILE 'WPIDS' ENTERED AT 16:38:03 ON 02 JUN 2002
COPYRIGHT (C) 2002 THOMSON DERWENT

=> **LUX (5A) POSITIVE**
LUX IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> **S LUX (5A) POSITIVE**
L1 82 LUX (5A) POSITIVE

=> **S L1 AND ABCDE**
L2 0 L1 AND ABCDE

=> **S L1 AND AB**
L3 0 L1 AND AB

=> **DUP REM L1**
PROCESSING COMPLETED FOR L1
L4 31 DUP REM L1 (51 DUPLICATES REMOVED)

=> **D 1-10**

L4 ANSWER 1 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 2002:90237 HCAPLUS
DN 136:129939
TI Transposable luciferase expression cassettes for Gram positive bacteria and their use to monitor bacterial infections by in situ bioluminescence
IN Francis, Kevin P.; Purchio, Anthony F.
PA Xenogen Corporation, USA
SO PCT Int. Appl., 114 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2002008431 | A1 | 20020131 | WO 2001-US7324 | 20010307 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 2000-216257P P 20000706

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

Full Text | Citing References

AN 2002:141613 BIOSIS
DN PREV200200141613
TI Expression of lux genes in a clinical isolate of Streptococcus pneumoniae: Using bioluminescence to monitor gemifloxacin activity.
AU Beard, S. J.; Salisbury, V. (1); Lewis, R. J.; Sharpe, J. A.; MacGowan, A. P.
CS (1) Faculty of Applied Sciences, University of the West of England, Coldharbour La, Bristol, BS16 1QY: vyv.salisbury@uwe.ac.uk UK
SO Antimicrobial Agents and Chemotherapy, (February, 2002) Vol. 46, No. 2, pp. 538-542. http://aac.asm.org/. print.
ISSN: 0066-4804.
DT Article
LA English

L4 ANSWER 3 OF 31 MEDLINE DUPLICATE 1

Full Text | Citing References

AN 2001248141 MEDLINE
DN 21189254 PubMed ID: 11292758
TI Visualizing pneumococcal infections in the lungs of live mice using bioluminescent Streptococcus pneumoniae transformed with a novel gram-**positive lux** transposon.
AU Francis K P; Yu J; Bellinger-Kawahara C; Joh D; Hawkinson M J; Xiao G; Purchio T F; Caparon M G; Lipsitch M; Contag P R
CS Xenogen Corporation, Alameda, California 94501, USA.. kfrancis@xenogen.com
SO INFECTION AND IMMUNITY, (2001 May) 69 (5) 3350-8.
Journal code: GO7; 0246127. ISSN: 0019-9567.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200105
ED Entered STN: 20010517
Last Updated on STN: 20010517
Entered Medline: 20010510

L4 ANSWER 4 OF 31 MEDLINE DUPLICATE 2

Full Text | Citing References

AN 2001086882 MEDLINE
DN 20566707 PubMed ID: 11114940
TI Amino acid residues in LuxR critical for its mechanism of transcriptional activation during quorum sensing in Vibrio fischeri.
AU Trott A E; Stevens A M
CS Department of Biology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061, USA.

SO JOURNAL OF BACTERIOLOGY, (2001 Jan) 183 (1) 387-92.
Journal code: HH3. ISSN: 0021-9193.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200101
ED Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010118

L4 ANSWER 5 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
Full Text | Citing References

AN 2002:201403 BIOSIS
DN PREV200200201403
TI Generation of bioluminescent Gram-positive bacteria for noninvasive imaging in living animals.
AU Francis, K. P. (1); Yu, J. (1); Bellinger-Kawahara, C. (1); Joh, D. (1); Purchio, T. F. (1); Contag, P. R. (1)
CS (1) Xenogen Corporation, Alameda, CA USA
SO Abstracts of the General Meeting of the American Society for Microbiology, (2001) Vol. 101, pp. 290. http://www.asmusa.org/mtgsrc/generalmeeting.htm. print.
Meeting Info.: 101st General Meeting of the American Society for Microbiology Orlando, FL, USA May 20-24, 2001
ISSN: 1060-2011.
DT Conference
LA English

L4 ANSWER 6 OF 31 MEDLINE DUPLICATE 3
Full Text | Citing References

AN 2000267863 MEDLINE
DN 20267863 PubMed ID: 10806366
TI The marine pathogen Vibrio vulnificus encodes a putative homologue of the Vibrio harveyi regulatory gene, luxR: a genetic and phylogenetic comparison.
AU McDougald D; Rice S A; Kjelleberg S
CS School of Microbiology and Immunology, The University of New South Wales, Sydney, Australia.
SO GENE, (2000 May 2) 248 (1-2) 213-21.
Journal code: FOP; 7706761. ISSN: 0378-1119.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-AF204737
EM 200007
ED Entered STN: 20000714
Last Updated on STN: 20000714
Entered Medline: 20000706

L4 ANSWER 7 OF 31 MEDLINE DUPLICATE 4
Full Text | Citing References

AN 97394920 MEDLINE
DN 97394920 PubMed ID: 9251182
TI Evaluation of luciferase reporter bacteriophage A511::luxAB for detection of Listeria monocytogenes in contaminated foods.
AU Loessner M J; Rudolf M; Scherer S
CS Institut fur Mikrobiologie, Technische Universitat Munchen, Freising-Weihenstephan, Germany.. M.J.Loessner@lrz.tu-muenchen.de
SO APPLIED AND ENVIRONMENTAL MICROBIOLOGY, (1997 Aug) 63 (8) 2961-5.
Journal code: 6K6; 7605801. ISSN: 0099-2240.
CY United States

DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199709
ED Entered STN: 19970926
Last Updated on STN: 19970926
Entered Medline: 19970918

L4 ANSWER 8 OF 31 MEDLINE DUPLICATE 5
Full Text | Citing References

AN 1998086108 MEDLINE
DN 98086108 PubMed ID: 9426139
TI Characterization of hapR, a positive regulator of the Vibrio cholerae HA/protease gene hap, and its identification as a functional homologue of the Vibrio harveyi luxR gene.
AU Jobling M G; Holmes R K
CS Department of Microbiology, University of Colorado Health Sciences Center, Denver 80262, USA.. Michael.Jobling@UCHSC.EDU
NC RO1 AI31940 (NIAID)
SO MOLECULAR MICROBIOLOGY, (1997 Dec) 26 (5) 1023-34.
Journal code: MOM; 8712028. ISSN: 0950-382X.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-AF000716; GENBANK-AF001009
EM 199803
ED Entered STN: 19980312
Last Updated on STN: 20000303
Entered Medline: 19980305

L4 ANSWER 9 OF 31 MEDLINE DUPLICATE 6
Full Text | Citing References

AN 95164504 MEDLINE
DN 95164504 PubMed ID: 7860584
TI Detection and quantification of Vibrio fischeri autoinducer from symbiotic squid light organs.
AU Boettcher K J; Ruby E G
CS Department of Biological Sciences, University of Southern California, Los Angeles 90089-0371.
SO JOURNAL OF BACTERIOLOGY, (1995 Feb) 177 (4) 1053-8.
Journal code: HH3; 2985120R. ISSN: 0021-9193.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199503
ED Entered STN: 19950404
Last Updated on STN: 19950404
Entered Medline: 19950317

L4 ANSWER 10 OF 31 SCISEARCH COPYRIGHT 2002 ISI (R) DUPLICATE 7
Full Text | Citing References

AN 96:35148 SCISEARCH
GA The Genuine Article (R) Number: TL751
TI AN EXTRA-LIMITAL BROAD-TAILED HUMMINGBIRD IN WINTER - DISORIENTED OR HARBINGER OF CHANGE
AU CALDER W A (Reprint)
CS UNIV ARIZONA, DEPT ECOL & EVOLUT BIOL, TUCSON, AZ, 85721 (Reprint)
CYA USA
SO JOURNAL OF FIELD ORNITHOLOGY, (FAL 1995) Vol. 66, No. 4, pp. 522-530.
ISSN: 0273-8570.
DT Article; Journal

FS AGRI
LA ENGLISH
REC Reference Count: 22
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

=> D 3

L4 ANSWER 3 OF 31 MEDLINE DUPLICATE 1
Full Text | Citing References

AN 2001248141 MEDLINE
DN 21189254 PubMed ID: 11292758
TI Visualizing pneumococcal infections in the lungs of live mice using bioluminescent Streptococcus pneumoniae transformed with a novel gram-**positive lux** transposon.
AU Francis K P; Yu J; Bellinger-Kawahara C; Joh D; Hawkinson M J; Xiao G; Purchio T F; Caparon M G; Lipsitch M; Contag P R
CS Xenogen Corporation, Alameda, California 94501, USA.. kfrancis@xenogen.com
SO INFECTION AND IMMUNITY, (2001 May) 69 (5) 3350-8.
Journal code: GO7; 0246127. ISSN: 0019-9567.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200105
ED Entered STN: 20010517
Last Updated on STN: 20010517
Entered Medline: 20010510

=> D 11-20

L4 ANSWER 11 OF 31 MEDLINE DUPLICATE 8
Full Text | Citing References

AN 94288634 MEDLINE
DN 94288634 PubMed ID: 8017939
TI Survival of lux-lac-marked biosurfactant-producing Pseudomonas aeruginosa UG2L in soil monitored by nonselective plating and PCR.
AU Flemming C A; Leung K T; Lee H; Trevors J T; Greer C W
CS Department of Environmental Biology, University of Guelph, Ontario, Canada.
SO APPLIED AND ENVIRONMENTAL MICROBIOLOGY, (1994 May) 60 (5) 1606-13.
Journal code: 6K6; 7605801. ISSN: 0099-2240.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199407
ED Entered STN: 19940810
Last Updated on STN: 19940810
Entered Medline: 19940728

L4 ANSWER 12 OF 31 SCISEARCH COPYRIGHT 2002 ISI (R) DUPLICATE 9
Full Text | Citing References

AN 94:626245 SCISEARCH
GA The Genuine Article (R) Number: PJ125
TI BIOLUMINESCENCE OF MYCTOPHID AND STOMIIFORM FISHES IS NOT DUE TO BACTERIAL LUCIFERASE
AU HAYGOOD M G (Reprint); EDWARDS D B; MOWLDS G; ROSENBLATT R H
CS UNIV CALIF SAN DIEGO, SCRIPPS INST OCEANOG, DIV MARINE BIOL RES, LA JOLLA, CA, 92093 (Reprint); UNIV CALIF SAN DIEGO, SCRIPPS INST OCEANOG, CTR MARINE BIOMED & BIOTECHNOL, LA JOLLA, CA, 92093
CYA USA

SO JOURNAL OF EXPERIMENTAL ZOOLOGY, (01 OCT 1994) Vol. 270, No. 2, pp. 225-231.
ISSN: 0022-104X.
DT Note; Journal
FS LIFE; AGRI
LA ENGLISH
REC Reference Count: 23
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

L4 ANSWER 13 OF 31 LIFESCI COPYRIGHT 2002 CSA
Full Text
AN 93:123433 LIFESCI
TI Response of Gambierdiscus toxicus to light: Cell physiology and toxicity.
AU Morton, S.L.; Bomber, J.W.; Tindall, D.R.; Aikman, K.E.
CS Dep. Plant Biol., Southern Illinois Univ., Carbondale, IL 62901, USA
SO DEV. MAR. BIOL., (1993) pp. 541-546. ELSEVIER. AMSTERDAM (NETHERLANDS).
Meeting Info.: 5. Int. Conf. on Toxic Marine Phytoplankton. Newport, RI (USA). 28 Oct 1991.
ISBN: 0-444-89719-4.
DT Book
TC Conference
FS Q1
LA English
SL English

L4 ANSWER 14 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
Full Text | Citing References
AN 1991:135772 BIOSIS
DN BA91:72312
TI THE VIBRIO-FISCHERI LUX-R PROTEIN IS CAPABLE OF BIDIRECTIONAL STIMULATION OF TRANSCRIPTION AND BOTH **POSITIVE** AND NEGATIVE REGULATION OF THE **LUX**-R GENE.
AU SHADEL G; BALDWIN T O
CS DEP. BIOCHEMISTRY BIOPHYSICS, TEXAS A AND M UNIVERSITY, COLLEGE STATION, TEXAS 77843.
SO J BACTERIOL, (1991) 173 (2), 568-574.
CODEN: JOBAAY. ISSN: 0021-9193.
FS BA; OLD
LA English

L4 ANSWER 15 OF 31 SCISEARCH COPYRIGHT 2002 ISI (R)DUPLICATE 10
Full Text | Citing References
AN 91:392243 SCISEARCH
GA The Genuine Article (R) Number: FV721
TI MECHANISMS OF EMBRYONIC DRIFT IN THE AMPHIDROMOUS GOBY, RHINOGOBIUS-BRUNNEUS
AU IGUCHI K I (Reprint); MIZUNO N
CS NATL RES INST FISHERIES SCI, 1088 KOMAKI, UEDA, NAGANO 386, JAPAN (Reprint); EHIME UNIV, FAC SCI, DEPT BIOL, MATSUYAMA, EHIME 790, JAPAN
CYA JAPAN
SO ENVIRONMENTAL BIOLOGY OF FISHES, (1991) Vol. 31, No. 3, pp. 295-300.
DT Note; Journal
FS AGRI
LA ENGLISH
REC Reference Count: 18
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

L4 ANSWER 16 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
Full Text | Citing References
AN 1989:426389 BIOSIS
DN BA88:84647
TI IDENTIFICATION OF THE OPERATOR OF THE LUX REGULON FROM THE VIBRIO-FISCHERI

STRAIN ATCC-7744.
AU DEVINE J H; SHADEL G S; BALDWIN T O
CS DEP. BIOCHEM. AND BIOPHYSICS, TEX. A AND M UNIV., COLLEGE STATION, TEX. 77843.
SO PROC NATL ACAD SCI U S A, (1989) 86 (15), 5688-5692.
CODEN: PNASA6. ISSN: 0027-8424.
FS BA; OLD
LA English

L4 ANSWER 17 OF 31 WPIDS (C) 2002 THOMSON DERWENT

Full Text

AN 1987-287684 [41] WPIDS
DNN N1987-215332 DNC C1987-122208
TI Positively and negatively chargeable electrophotographic photoreceptor - has photoconductive layer contg. zinc oxide, acidic dye sensitiser, organic resinous binder and di amino cpd. with benzyl gps..
DC A89 E14 E24 G08 P84 S06
PA (TOMO) TOMOEGAWA PAPER MFG CO LTD
CYC 1
PI JP 62200360 A 19870904 (198741)* 6p
JP 04029055 B 19920515 (199224) 7p G03G005-05
ADT JP 62200360 A JP 1986-41604 19860228; JP 04029055 B JP 1986-41604 19860228
FDT JP 04029055 B Based on JP 62200360
PRAI JP 1986-41604 19860228
IC ICM G03G005-05
ICS G03G005-06; G03G005-08

L4 ANSWER 18 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

Full Text | Citing References

AN 1987:221226 BIOSIS
DN BR32:107100
TI OVERPRODUCTION AND PURIFICATION OF **LUX** RECEPTOR PROTEIN THE **POSITIVE** REGULATORY ELEMENT OF VIBRIO-FISCHERI LUMINESCENCE.
AU KAPLAN H B; GREENBERG E P
CS CORNELL UNIV., ITHACA, N.Y.
SO 87TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, ATLANTA, GEORGIA, USA, MARCH 1-6, 1987. ABSTR ANNU MEET AM SOC MICROBIOL. (1987) 87 (0), 169.
CODEN: ASMACK. ISSN: 0094-8519.
DT Conference
FS BR; OLD
LA English

L4 ANSWER 19 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1985:15049 HCAPLUS
DN 102:15049
TI Electrophotographic photoreceptor
PA Tomoegawa Paper Mfg. Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | JP 59116662 | A2 | 19840705 | JP 1982-224894 | 19821223 |
| | JP 63057780 | B4 | 19881114 | | |
| | US 4539282 | A | 19850903 | US 1983-563437 | 19831220 |
| | EP 115198 | A1 | 19840808 | EP 1983-307944 | 19831223 |
| | EP 115198 | B1 | 19870311 | | |
| | R: CH, DE, FR, GB, IT, LI, NL | | | | |
| | CA 1211976 | A1 | 19860930 | CA 1983-444184 | 19831223 |

PRAI JP 1982-224894 19821223

L4 ANSWER 20 OF 31 WPIDS (C) 2002 THOMSON DERWENT

Full Text

AN 1984-061643 [10] WPIDS
DNN N1984-046494
TI Fish attraction light system - improves attraction of fish with unstable positive reaction to light by using a light source of 100-0,01 lux.
DC P14
IN EGOROV, V G; PROTASOV, V R; PYATNITSKI, I I
PA (PYAT-I) PYATNITSKII I I
CYC 1
PI SU 1017247 A 19830515 (198410)* 2p
ADT SU 1017247 A SU 1980-3002603 19800915
PRAI SU 1980-3002603 19800915
IC A01K075-02

=> D 21-31

L4 ANSWER 21 OF 31 LIFESCI COPYRIGHT 2002 CSA

Full Text

AN 83:42247 LIFESCI
TI Changes in phototaxis during early development of walleye.
AU Bulkowski, L.; Meade, J.W.
CS Natl. Fishery Res. & Dev. Lab., U.S. Fish & Wildl. Serv., Rural Delivery 4, Box 63, Wellsboro, PA 16901, USA
SO TRANS. AM. FISH. SOC., (1983) vol. 112, no. 3, pp. 445-447.
DT Journal
FS Y
LA English
SL English

L4 ANSWER 22 OF 31 WPIDS (C) 2002 THOMSON DERWENT

Full Text

AN 1983-763616 [37] WPIDS
DNN N1983-163214 DNC C1983-088798
TI Photoconductivity sensitiser for poly-9-vinyl-carbazole - involves using 9-methyl-fluoro-acridine(s), to extend range of sensitisers that can be used.
DC A14 A89 E13 G08 P84 S06 U11
IN BABUSHKIN, V A; KUROV, G N; SMIRNOV, V I
PA (ASII) AS SIBE IRKUT ORG CHEM
CYC 1
PI SU 972468 A 19821107 (198337)* 5p
PRAI SU 1981-3296469 19810528
IC G03G005-06

L4 ANSWER 23 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1975:105201 HCAPLUS
DN 82:105201
TI Sensitive plates for electrophotography
PA Rank-Xerox Ltd.
SO Brit., 4 pp.
CODEN: BRXXAA
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | GB 1366107 | A | 19740911 | GB 1971-50257 | 19711028 |

| | | | | | |
|---|---|---|---|---|---|
| | JP 49015221 | B4 | 19740413 | JP 1970-96216 | 19701031 |
| PRAI | JP 1970-96216 | | 19701031 | | |

L4 ANSWER 24 OF 31 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.

Full Text | Citing References

AN 75044718 EMBASE
DN 1975044718
TI Behavior in different environments of populations of Drosophila pseudoobscura selected for phototaxis and geotaxis.
AU Dobzhansky T.; Judson C.L.; Pavlovsky O.
CS Dept. Genet. Entomol., Univ. California, Davis, Calif. 95616, United States
SO Proceedings of the National Academy of Sciences of the United States of America, (1974) 71/5 (1974-1976).
CODEN: PNASA6
DT Journal
FS 022 Human Genetics
LA English

L4 ANSWER 25 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1969:410443 HCAPLUS
DN 71:10443
TI Effect of phosphorus feeding conditions on photosynthesis by apple trees
AU Lebedev, V. M.
CS Michurin. Plodoovoshch. Inst., Michurinsk, USSR
SO Biol. Nauki (1969), (3), 93-7
CODEN: BINKBT
DT Journal
LA Russian

L4 ANSWER 26 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1969:52176 HCAPLUS
DN 70:52176
TI Positive and negative photoconductivity in infrared irradiation of cadmium sulfide
AU Vateva, El.; Todorov, G.; Kamenova, M.
CS Inst. Phys., Sofia, Bulg.
SO Dokl. Bolg. Akad. Nauk (1968), 21(11), 1165-8
CODEN: DBANAD
DT Journal
LA English

L4 ANSWER 27 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1966:409213 HCAPLUS
DN 65:9213
OREF 65:1667g-h,1668a
TI Electrophotographic process
PA Katsuragawa Denki Kabushiki Kaisha
SO 32 pp.
DT Patent
LA Unavailable
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | NL 65009608 | | 19660126 | NL | |
| PRAI | JP | | 19640725 | | |

L4 ANSWER 28 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1963:464109 HCAPLUS
DN 59:64109
OREF 59:11884b-d
TI The effect of naphthylphthalamic acid on stimulus perception in the I and 2 positive and the 1 negative phototropic and the geotropic reactions of Avena coleoptiles
AU Libbert, E.; Steyer, B.
CS Univ. Rostock, Germany
SO Naturwissenschaften (1963), 50(7), 576
DT Journal
LA Unavailable

L4 ANSWER 29 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1953:71559 HCAPLUS
DN 47:71559
OREF 47:12068i,12069a
TI Production of photographic images on selenium by crystallization under the influence of light
AU Selenyi, P.
CS Roland Eotvos Univ., Budapest
SO Acta Phys. Acad. Sci. Hung. (1952), 2, 129-39
DT Journal
LA German

L4 ANSWER 30 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1951:59065 HCAPLUS
DN 45:59065
OREF 45:10043e-i,10044a-f
TI Structure and particularities of the operation of silver sulfide photocells
AU Potapenko, I. R.
CS Phys. Inst., Acad. Sci. Ukr. S.S.R., Kiev
SO Zhur. Tekh. Fiz. (1948), 18, 1356-68
DT Journal
LA Unavailable

L4 ANSWER 31 OF 31 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1936:7483 HCAPLUS
DN 30:7483
OREF 30:967h-i,968a
TI Photoelectric cells with barrier film artificially deposited
AU van Geel, W. Ch.; de Boer, J. H.
SO Physica (1935), 2, 892-900
DT Journal
LA Unavailable

=> **DIS HIS**

(FILE 'HOME' ENTERED AT 16:36:44 ON 02 JUN 2002)

FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 16:38:03 ON 02 JUN 2002

L1 82 S LUX (5A) POSITIVE
L2 0 S L1 AND ABCDE
L3 0 S L1 AND AB
L4 31 DUP REM L1 (51 DUPLICATES REMOVED)

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=> S LUX (10A)LUC
L5          52 LUX (10A) LUC

=> S LUXA (3A)LUXB (SA) LUC
MISSING OPERATOR 'LUXB (SA'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> S LUXA (3A) LUXB(3A) LUC
L6           0 LUXA (3A) LUXB(3A) LUC

=> S LUXA AND LUXB AND LUC
L7           7 LUXA AND LUXB AND LUC

=> DUP REM L7
PROCESSING COMPLETED FOR L7
L8           7 DUP REM L7 (0 DUPLICATES REMOVED)

=> D 1-7

L8   ANSWER 1 OF 7  HCAPLUS  COPYRIGHT 2002 ACS
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Full Text | Citing References

```
AN   2002:90237  HCAPLUS
DN   136:129939
TI   Transposable luciferase expression cassettes for Gram positive bacteria
     and their use to monitor bacterial infections by in situ bioluminescence
IN   Francis, Kevin P.; Purchio, Anthony F.
PA   Xenogen Corporation, USA
SO   PCT Int. Appl., 114 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE          APPLICATION NO.  DATE
     ---------------    ----  --------      ---------------  --------
PI   WO 2002008431      A1    20020131      WO 2001-US7324   20010307
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            CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
            HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
            SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
            YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 2000-216257P   P    20000706
RE.CNT  10     THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8   ANSWER 2 OF 7  WPIDS (C) 2002 THOMSON DERWENT
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Full Text

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AN   2001-226744 [23]   WPIDS
DNC  C2001-067719
TI   Luciferase expression cassettes for conferring bioluminescence on
     gram-positive bacteria, has polynucleotide encoding luciferase gene
     products and gram-positive Shine-Dalgarno sequences upstream of
     polynucleotide.
DC   B04 C06 D16
IN   CONTAG, P R; FRANCIS, K P; JOH, D J
PA   (XENO-N) XENOGEN CORP
CYC  93
PI   WO 2001018195 A2 20010315 (200123)* EN   73p    C12N015-00
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
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NL OA PT SD SE SL SZ TZ UG ZW
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DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2000071266 A 20010410 (200137) C12N015-00
ADT WO 2001018195 A2 WO 2000-US24699 20000907; AU 2000071266 A AU 2000-71266 20000907
FDT AU 2000071266 A Based on WO 200118195
PRAI US 1999-152904P 19990908
IC ICM C12N015-00

L8 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1996:172487 HCAPLUS
DN 124:222083
TI Comparison of Vibrio and firefly luciferases as reporter gene systems for use in bacteria and plants
AU Mudge, Stephen R.; Lewis-Henderson, Wendy R.; Birch, Robert G.
CS Department Botany, University Queensland, 4072, Australia
SO Aust. J. Plant Physiol. (1996), 23(1), 75-85
CODEN: AJPPCH; ISSN: 0310-7841
DT Journal
LA English

L8 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1996:651239 HCAPLUS
DN 125:294255
TI Chloramphenicol acetyl-transferase, firefly and bacterial luciferases as reporter genes in transfection of mammalian cells
AU Gelmini, S.; Pinzani, P.; Orlando, C.; Sestini, R.; Baldwin, T. O.; Pazzagli, M.
CS Clinical Biochemistry Unit, University Florence, Italy
SO Biolumin. Chemilumin., Proc. Int. Symp., 7th (1993), 200-206. Editor(s): Szalay, Aladar A.; Kricka, Larry J.; Stanley, Philip E. Publisher: Wiley, Chichester, UK.
CODEN: 63MLAK
DT Conference
LA English

L8 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2002 ACS

Full Text | Citing References

AN 1996:651220 HCAPLUS
DN 125:319192
TI Baculovirus-mediated expression of bacterial and beetle luciferases in insect cells
AU Saviranta, Petri; Oker-Blom, Christian; Karp, Matti
CS Department Biochemistry, University Turku, Turku, Finland
SO Biolumin. Chemilumin., Proc. Int. Symp., 7th (1993), 94-98. Editor(s): Szalay, Aladar A.; Kricka, Larry J.; Stanley, Philip E. Publisher: Wiley, Chichester, UK.
CODEN: 63MLAK
DT Conference
LA English

L8 ANSWER 6 OF 7 BIOTECHDS COPYRIGHT 2002 THOMSON DERWENT AND ISI

Full Text

AN 1992-09556 BIOTECHDS
TI Expression of luciferase genes from different origins in Bacillus subtilis;
cloning using plasmid pCSS119, plasmid pCSS810 and plasmid pCSS962

vector
AU Lampinen J; Koivisto L; Wahlsten M; Mantsala P; *Karp M
LO Centre for Biotechnology, P.O. Box 123, 20521 Turku, Finland.
SO Mol.Gen.Genet.; (1992) 232, 3, 498-504
CODEN: MGGEAE
DT Journal
LA English

L8 ANSWER 7 OF 7 BIOTECHDS COPYRIGHT 2002 THOMSON DERWENT AND ISI

Full Text

AN 1988-05416 BIOTECHDS
TI Visualizing gene expression with luciferase fusions;
selectable marker for gene expression visualization
AU Schauer A T
LO Department of Microbiology, University of Texas, Austin, TX 78712-1095, USA.
SO Trends Biotechnol.; (1988) 6, 1, 23-27
DT Journal
LA English

=> D 3-7 KWIC

L8 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2002 ACS

Citing References

AB Luciferase genes from Vibrio harveyi (luxAB) and firefly (**luc**) were introduced into E. coli, Agrobacterium, Arabidopsis and tobacco. Transformed bacteria and plants were quant. assayed for luciferase activity using a range of in vitro and in vivo assay conditions. Both lux and **luc** proved efficient reporter genes in bacteria, although it is important to be aware that the sensitive assays may detect expression. . . serious limitations to application of the lux system for sensitive, non-toxic assays of reporter gene expression in plants. In contrast, **LUC** activity was readily detectable in intact tissues of all plants with **luc** expression detectable by luminometer assays on cell exts. Image intensities of **luc**-expressing leaves were commonly two to four orders of magnitude above controls under the CCD camera. Provided adequate penetration of the substrate luciferin is obtained, **luc** is suitable for applications requiring sensitive, non-toxic assays of reporter gene expression in plants.
IT Gene, animal
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**luc**, comparison of Vibrio and firefly luciferases as reporter gene systems for use in bacteria and plants)
IT Gene, microbial
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**luxA**, comparison of Vibrio and firefly luciferases as reporter gene systems for use in bacteria and plants)
IT Gene, microbial
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**luxB**, comparison of Vibrio and firefly luciferases as reporter gene systems for use in bacteria and plants)
IT Gene, microbial
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**luxB**, comparison of Vibrio and firefly luciferases as reporter gene systems for use in bacteria and plants)

L8 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2002 ACS

Citing References

AB . . . were transfected with constructs contg. the glucocorticoid-inducible promoter of mouse mammary tumor virus with reporter genes CAT (encoding chloramphenicol acetyltransferase), **luc** (encoding luciferase from Phodinus pyralis), or a fused luxAB (encoding A and B subunits of luciferase from Vibrio harveyi). The. . .

ST gene **luc** CAT luxAB reporter transfection; mammal cell transfection reporter gene; Vibrio luciferase mammal cell transfection reporter; firefly luciferase mammal cell transfection. . .

IT Gene, animal
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**luc**, chloramphenicol acetyl-transferase and firefly and bacterial luciferases as reporter genes in transfection of mammalian cells)

IT Gene, microbial
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**luxA**, chloramphenicol acetyl-transferase and firefly and bacterial luciferases as reporter genes in transfection of mammalian cells)

IT Gene, microbial
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**luxB**, chloramphenicol acetyl-transferase and firefly and bacterial luciferases as reporter genes in transfection of mammalian cells)

L8 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2002 ACS

Citing References

AB The **luc** genes from Photinus pyralis and Pyrophorus plagiopthalamus and 2 fusion-lux genes from Vibrio Harveyi were expressed in Sf9 cells using. .

ST baculovirus luciferase bacteria beetle Sf9 cell; Pyrophorus luciferase baculovirus Sf9 cell; Photinus luciferase baculovirus Sf9 cell; gene **luc** lux baculovirus insect cell

IT Photinus pyralis
Pyrophorus plagiophthalamus
(**luc** gene of; baculovirus-mediated expression of bacterial and beetle luciferases in insect cells)

IT Gene, animal
RL: BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(**luc**, baculovirus-mediated expression of bacterial and beetle luciferases in insect cells)

IT Gene, microbial
RL: BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(**luxA**, fusion with **luxB**; baculovirus-mediated expression of bacterial and beetle luciferases in insect cells)

IT Gene, microbial
RL: BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(**luxB**, fusion with **luxA**; baculovirus-mediated expression of bacterial and beetle luciferases in insect cells)

IT Gene, microbial
RL: BPR (Biological process); BUU (Biological use, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)
(**luxB**, fusion with **luxA**; baculovirus-mediated expression of bacterial and beetle luciferases in insect cells)

L8 ANSWER 6 OF 7 BIOTECHDS COPYRIGHT 2002 THOMSON DERWENT AND ISI

AB A group of 3 vectors for luciferase expression in Bacillus subtilis was

constructed. Vibrio harveyi luciferase (EC-1.14.14.3) **luxA** and **luxB** genes, the firefly (Photinus pyralis) luciferase (EC-1.13.12.7) **luc** gene and 1 of the 4 click beetle (Pyrophorus pyralis) luciferase lucGR genes were inserted under the control of regulatory. . .

L8 ANSWER 7 OF 7 BIOTECHDS COPYRIGHT 2002 THOMSON DERWENT AND ISI
AB. . . their host the ability to glow in the dark, i.e. bacterial luciferases composed of 2 peptide subunits encoded by the **luxA** and **luxB** genes, and firefly luciferase comprising a single polypeptide encoded by the **luc** gene. The 2 types of enzyme catalyze different reactions. The prokaryotic enzyme oxidizes a long chain aldehyde with energy transfer. . .

=> **DIS HIS**

(FILE 'HOME' ENTERED AT 16:36:44 ON 02 JUN 2002)

FILE 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 16:38:03 ON 02 JUN 2002

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L1          82 S LUX (5A) POSITIVE
L2           0 S L1 AND ABCDE
L3           0 S L1 AND AB
L4          31 DUP REM L1 (51 DUPLICATES REMOVED)
L5          52 S LUX (10A)LUC
L6           0 S LUXA (3A) LUXB(3A) LUC
L7           7 S LUXA AND LUXB AND LUC
L8           7 DUP REM L7 (0 DUPLICATES REMOVED)
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=>

FILE COVERS 1907 - 2 Jun 2002 VOL 136 ISS 23
FILE LAST UPDATED: 31 May 2002 (20020531/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> **s vellanoweth, ?/au**
L1 14 VELLANOWETH, ?/AU

=> **s l1 and py=1992**
667718 PY=1992
L2 1 L1 AND PY=1992

=> **d**

L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
Full Text | Citing References

AN 1992:423075 CAPLUS
DN 117:23075
TI The influence of ribosome-binding-site elements on translational efficiency in Bacillus subtilis and Escherichia coli in vivo
AU **Vellanoweth, Robert Luis**; Rabinowitz, Jesse C.
CS Dep. Mol. Cell Biol., Univ. California, Berkeley, CA, 94720, USA
SO Mol. Microbiol. (**1992**), 6(9), 1105-14
CODEN: MOMIEE; ISSN: 0950-382X
DT Journal
LA English

=> **d ab**

L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
Citing References

AB A method is described to det. simultaneously the effect of any changes in the ribosome-binding site (RBS) of mRNA on translational efficiency in Bacillus subtilis and Escherichia coli in vivo. The approach was used to analyze systematically the influence of spacing between the Shine-Dalgarno sequence and the initiation codon, the three different initiation codons, and RBS secondary structure on translational yields in the two organisms. Both B. subtilis and E. coli exhibited similar spacing optima of 7-9 nucleotides. However, B. subtilis translated messages with spacings shorter than optimal much less efficiently than E. coli. In both organisms, AUG was the preferred initiation codon by two- to threefold. In E. coli GUG was slightly better than UUG while in B. subtilis UUG was better than GUG. The degree of emphasis placed on initiation codon type, as measured by translational yield, was dependent on the strength of the Shine-Dalgarno interaction in both organisms. B. subtilis was also much less able to tolerate secondary structure in the RBS than E. coli. While significant differences were found between the two organisms in the effect of specific RBS elements on translation, other mRNA components in addn. to those elements tested appear to be responsible, in part, for translational species specificity. The approach described provides a rapid and systematic means of elucidating such addnl. determinants.

=> D L8 7

L8 ANSWER 7 OF 7 BIOTECHDS COPYRIGHT 2002 THOMSON DERWENT AND ISI

Full Text

AN 1988-05416 BIOTECHDS
TI Visualizing gene expression with luciferase fusions; selectable marker for gene expression visualization
AU Schauer A T
LO Department of Microbiology, University of Texas, Austin, TX 78712-1095, USA.
SO Trends Biotechnol.; (1988) 6, 1, 23-27
DT Journal
LA English

L8 ANSWER 7 OF 7 BIOTECHDS COPYRIGHT 2002 THOMSON DERWENT AND ISI
AB A new set of selectable marker genes is greatly extending the power of recombinant DNA technology by providing a vast increase in sensitivity, simplicity and spatial resolution of gene expression. Genes have been cloned which confer on their host the ability to glow in the dark, i.e. bacterial luciferases composed of 2 peptide subunits encoded by the **luxA** and **luxB** genes, and firefly luciferase comprising a single polypeptide encoded by the **luc** gene. The 2 types of enzyme catalyze different reactions. The prokaryotic enzyme oxidizes a long chain aldehyde with energy transfer from FMNH2, whilst the firefly enzyme couples the oxidation of a heterocyclic carboxylic acid with energy transfer from ATP. Both substrates are commercially availible and can be supplied exogenously. For use of the lux system as a marker, the promoter region of interset is inserted into a vector at 1 of the restriction sites in the polylinker, just downstream of the promoterless luxAB cassette and optional, promoterless, drug resistance determinant. Fusions to both sets of gene, spatial analysis and future prospects are considered. (26 ref)

=>